ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES INC
209 SHAFTER STREET
ISLANDIA, NEW YORK 11749 TEL 631-232-2600 FAX 631-232-9898

April 29, 2016

Mike Cirian, P.E.
USEPA
108 East 9th Street
Libby, Montana 59923

Re: Response to Comments from USEPA
Columbia Falls Aluminum Company, Columbia Falls, Montana

Dear Mr. Cirian:

Roux Associates, Inc. (Roux Associates), on behalf of Columbia Falls Aluminum Company (CFAC), has prepared this response to the comments provided by the United States Environmental Protection Agency (USEPA) via email correspondence dated April 26, 2016 regarding the Columbia Falls Aluminum Company Remedial Investigation / Feasibility Study (RI/FS) Work Plan and Sampling and Analysis Plan (SAP). Each of the comments are presented below, followed by Roux Associates' response.

1) Since the operation permanently closed in 2015, what will become of the main plant area and the buildings on it? Will the site remain industrial with institutional controls? Will the buildings be demolished? If so, will the area be sampled in a later phase of the investigation? I noticed there are no current environmental samples being planned for this area.

   The buildings within the Main Plant Area are currently being demolished by Calbag Resources (Calbag), a demolition company based out of Portland, Oregon. Calbag is responsible for removing, disposing, and recycling the building materials. Calbag will also be removing and disposing the remaining waste from the buildings, including spent pot liner. The demolition Scope of Work is not considered to be part of the RI/FS and is being overseen by the Montana Department of Environmental Quality (MDEQ). The demolition is expected to take approximately three years.

   Due to the ongoing demolition activities and the status of the Main Plant Area, only a limited number of samples are being collected within this area during the Phase I Site Characterization planned for 2016. The Scope of Work for any future investigations have not yet been developed.

   CFAC and Glencore have not conducted sufficient evaluations to make a determination on potential future uses of the Site at this time. The preliminary conceptual site model (CSM) provided in the RI/FS Work Plan is based only on current site use and land use in the vicinity of the Site. An updated CSM will be

provided in the baseline risk assessment work plan (BRAWP) and will need to consider both current and potential future use of the Site.

2) The human health site conceptual model should be revised to include ingestion of sediment and surface water. Right now only dermal exposure is considered to be complete.

The CSM provided in the RI/FS Work Plan is a preliminary CSM. The CSM will be re-evaluated and updated during preparation of the BRAWP. The BRAWP will be prepared following completion of the Phase 1 Site Characterization Program and the results of the investigation will be utilized when refining the CSM and determining which pathways are complete, potentially complete, or incomplete.

3) The food chain, such as hunting and fishing, are considered to be complete pathways in the site conceptual model. How do the authors propose to quantitatively evaluate this pathway? Will biological media be collected in a later phase?

The Phase I Site Characterization includes a Screening Level Ecological Risk Assessment (SLERA), the scope of which is described in detail in Appendix B of the RI/FS Work Plan. As described in the SLERA scope of work, screening level estimates of exposure will be performed by comparing maximum concentrations of contaminants of potential concern (COPCs) to conservative benchmarks. The results of these analysis will determine where additional ecological assessment work may need to be conducted. Any additional Scope of Work needed to further evaluate the various exposure pathways will be provided in the BRAWP and Phase 2 Site Characterization SAP.

4) It is unclear to me how the authors propose to evaluate the "soil vapor" pathway? Are they looking at indoor vapor intrusion for existing or future buildings? Will they be modeling indoor air from groundwater and soil gas data? It would have been helpful if the RI risk assessment workplan had provided a little more detail about this. This is definitely a pathway I would look at more closely when the baseline risk assessment is developed.

The Phase I Site Characterization will serve as a preliminary analysis to develop an initial understanding if there is a potential for human health risk posed by vapor intrusion. This will be done by screening with a landfill gas meter (measuring percent LEL and carbon dioxide) and PID at landfills and through passive vapor sampling as described in Section 5.2.4 of the RI/FS Work Plan. These results will provide screening data for qualitative evaluation to indicate whether VOCs are present and potentially warrant further soil vapor investigation in Phase 2. In addition, groundwater and soil sampling results from the Phase I Site Characterization scope of work will be evaluated to determine the presence of volatile COPCs. The groundwater analytical results for VOCs, if detected, will be compared to the screening levels calculated using the Vapor Intrusion Screening Level (VISL) calculator to determine if, where, and to what extent, soil vapor sampling and analysis may be required as part of the Phase 2 Site Characterization.

Should there be any questions or comments on this submission, please do not hesitate to contact me at (631) 232-2600.

Sincerely,

ROUX ASSOCIATES, INC.

Michael Ritorto
Senior Hydrogeologist/
RI Manager

cc: John Stroiazzo, Glencore
Steve Wright, Columbia Falls Aluminum Company
Andrew Baris, Roux Associates